

CLAIMS

- 1 1. A method of updating a common data source of data items and associations among said data
2 items, wherein said common data source being accessible by more than one client storing
3 copies of at least two of said data items and at least one association between at least two data
4 items, and wherein at least one of said data items is a thought capable of being interactively
5 modified, created, or interconnected by at least one of said clients, comprising:
6 receiving a request from a client to modify a data item; and
7 updating said data source according to said request.
- 1 2. The method of claim 1, further comprising:
2 sending a confirmation of said updating to said client.
- 1 3. The method of claim 1, further comprising:
2 modifying said copy of said data item.
- 1 4. The method of claim 1, in which said receiving step is done any time one of said more than
2 one clients operates on said data item.
- 1 5. The method of claim 1, in which said receiving step is done any time one of said more than
2 one clients modifies said data item.
- 1 6. The method of claim 1, in which said receiving step is done any time one of said more than
2 one clients deletes said data item.
- 1 7. The method of claim 1, in which said receiving step is done any time one of said more than
2 one clients activates a new thought.
- 1 8. The method of claim 1, in which said receiving step is done any time one of said more than
2 one clients creates a new thought.

- 1 9. The method of claim 1, in which said receiving step is done any time one of said more than
2 one clients creates a new interconnection between at least two of said thoughts.
- 1 10. The method of claim 1, in which said receiving step is done any time one of said more than
2 one clients operates on said data item, and further comprising:
3 barring other of said more than one clients from modifying said data item between the
4 time the request is received from said client and the confirmation is sent to said client.
- 1 11. A method for a first client to update a common data source that is accessible by a second
2 client, said common data source having data items and associations between data items, said
3 first client storing a local version of said common data source, comprising:
4 recording modifications made to said local version;
5 sending said recorded modifications to said common data source; and
6 storing changes in said associations with respect to said modifications.
- 1 12. A method for a common data source that is accessible by more than one client to update at
2 least one of said clients that stores a local version of said common data source, said common
3 data source having data items and associations between data items, comprising:
4 detecting data items missing from said local version;
5 sending said missing data items to said local version; and
6 updating said missing data items and associations with said missing data items in said
7 local version.
- 1 13. The method of claim 12 further comprising:
2 detecting whether more than one of said clients each attempted to send to the
3 common data source the same data item under different identifiers.
- 1 14. The method of claim 12 further comprising:
2 detecting whether more than one of said clients each attempted to send to the
3 common data source different data items under the same identifier.

1 15. An apparatus for a client to modify the display of indicia of at least a first data item and a
2 second data item and at least one association between those two data items, comprising:
3 a first repository storing said first data item;
4 a second repository storing said second data item; and
5 a third repository storing said association between said first data item and said second
6 data item.

1 16. The apparatus of claim 15, further comprising:
2 an intermediary receiving a request from said client and providing interface to said
3 first repository and said second repository.

1 17. The apparatus of claim 16, wherein said intermediary causes said display to modify.

1 18. The apparatus of claim 16, wherein said intermediary addresses said request to said first and
2 second repositories with respect to said first and said second data items, respectively.

1 19. The apparatus of claim 17, further comprising:
2 information that is sent to said intermediary from said first repository or said second
3 repository relevant to whether the requested modification requires the display of
4 graphic representations of additional data items associated with said first data item or
5 said second data item, respectively.

1 20. The apparatus of claim 17, further comprising:
2 information that is requested from said third repository relevant to whether the
3 requested modification requires the display of any associations between any data
4 items from the first repository with any data items from the second repository.

1 21. An apparatus for a client to modify the display of indicia of at least a first data item and a
2 second data item and at least one association between those two data items, comprising:
3 a first server storing said first data item and a record of said at least one association;
4 and

5 a second server storing said second data item and a record of said at least one
6 association.

1 22. The apparatus of claim 21, further comprising:
2 a request to said first server and said second server for information relevant to
3 modifying said display.

1 23. A method of associating a display of more than one items of content in conjunction with a
2 display of an indication of a single data item, comprising:
3 creating a record of an identity of said data item and an identity of each of said more
4 than one items of content with reference to said identity of said data item;
5 referencing said record when said data item is selected; and
6 displaying indicia of said more than one items of content.

1 24. A method for conveniently emphasizing the display of secondary relationships among items
2 of data comprising:
3 displaying a first item of data; and
4 at least one primary relationship to a second item of data; and
5 at least one secondary relationship between said second item of data and a third item
6 of data; and
7 displaying emphasis upon said second relationship and said third item of data in response to
8 interaction with said second item of data.

1 25. The method of claim 24 in which said emphasis is displayed by reducing the emphasis
2 displayed with respect to said primary item of data, and said primary relationship.

1 26. The method of claim 24 in which said emphasis is displayed by increasing the emphasis
2 displayed with respect to said secondary relationship and said third item of data.